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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/777,552

02/12/2004

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UPN-4290

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EXAMINER

SCHLIENTZ, LEAH H

ART UNIT

PAPER NUMBER

1618

MAIL DATE

DELIVERY MODE

12/12/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Advisory Action Before the Filing of an Appeal Brief	Application No. 10/777,552	Applicant(s) HAMMER ET AL.	
	Examiner Leah Schlientz	Art Unit 1618	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 11/21/1007 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
 b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
 (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
 (b) ☐ They raise the issue of new matter (see NOTE below);
 (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
 5. ☐ Applicant's reply has overcome the following rejection(s): _____.
 6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
 7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
 The status of the claim(s) is (or will be) as follows:
 Claim(s) allowed: _____.
 Claim(s) objected to: _____.
 Claim(s) rejected: See continuation sheet.
 Claim(s) withdrawn from consideration: See continuation sheet.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
 9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
 10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See attached
 12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____.
 13. ☐ Other: _____.

Continuation of 7.

Claims 1,3-5,10,12,13,15-23,32-42,46,52,54,55,60,63,65,70-75,78,79 and 88-101 are rejected.

Claims 6-9,14,24-31,43-45,47-51,56-59,64,66-69,76,77,80-87,102-107,109-117, 119-131,133-141,143-153,155-166,168-170 and 172-184 are withdrawn from consideration.

In the amendment filed 11/21/2007, claims 1,52,107,131,153,166 and 170 have been amended to incorporate language from claims 2 and 11. Claims 2,11,53,61,108,118,132,142,154,167 and 171 have been cancelled.

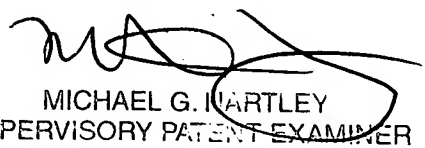
The rejection of claims 1-4,15,22,23,32-42,46,52-55,65,74,78,79 and 88-101 under 35 USC 103(a) as being unpatentable over Unger (US 6,123,923) in view of Lee has been WITHDRAWN as being overcome by amendment.

The rejection of claims 1-4,15,22,23,32-42 and 46 under 35 USC 103(a) as being unpatentable over Klaveness (US 6,159,445) in view of Lee has been WITHDRAWN as being overcome by amendment.

Claims 1,3-5,10,12,13,15-23,32-42,46,52,54,55,60,63,65,70-75,78,79 and 88-101 are rejected under 35 USC 103(a) as being unpatentable over Klaveness (US 6,159,445) and Unger (US 6,123,923) in view of the Lee article, in further view of the Lin article, for reasons set forth in the Office Action mailed 9/5/2007.

Applicant argues that the Klaveness and Unger patents do not teach or suggest the emissive agents or the amphiphilic copolymers of the instant claims and that all elements of the invention would have to be imported from other references. Applicant contends that the Office seeks to provide the missing information by importing the teachings of two additional references, the Lee article for amphiphilic copolymer and the Lin article for the porphyrin moieties and that the extend of reconstruction necessary to allegedly arrive at the instant claim is too extensive to be consistent with obviousness. Applicant argues that rejections under 35 USC 103 must rest on a factual basis and these facts must be interpreted without hindsight reconstruction of the invention from prior art.

Applicant's arguments have been fully considered but have been found non-persuasive. "[A]ny judgement on obviousness is in a sense necessarily a reconstruction based on hindsight reasoning, but so long as it takes into account only knowledge which was within the level of ordinary skill in the art at the time the claimed invention was made and does not include knowledge gleaned only from applicant's disclosure, such a reconstruction is proper." In re McLaughlin 443 F.2d 1392, 1395, 170 USPQ 209, 212 (CCPA 1971). Regarding Applicant's argument that the combination of two or more references is "hindsight" because motivation to combine the references is lacking, there is no requirement that an "express, written motivation to combine must appear in prior art references before a finding of obviousness." See Ruiz v. A.B. Chance Co., 357 F.3d 1270, 1276, 69 USPQ2d 1686, 1690 (Fed. Cir. 2004). For example, motivation to combine prior art references may exist in the nature of the problem to be solved (Ruiz at 1276, 69 USPQ2d at 1690) or the knowledge of one of ordinary skill in the art (National Steel Car v. Canadian Pacific Railway Ltd., 357 F.3d 1319, 1338, 69 USPQ2d 1641, 1656 (Fed. Cir. 2004)). See MPEP § 2143.01. Furthermore, it is the position of the examiner that proper motivation exists in the combined teaching of the prior art for making the combination of changes to the Klaveness and Unger patents (i.e substitution of amphiphilic copolymers, as in the Lee article, and substitution of conjugated porphyrin moiety as the emissive agent, as in the Lin article), and that such motivation is made clear in the cited references, and thus would have been knowledge available to one having ordinary skill in the art at the time the invention was made. For example, one would have been motivated to utilize polymersomes comprising amphiphilic diblock copolymers as the vesicles which contain a chromophore or fluorophore in the light imaging agents of Unger or Klaveness comprising liposome or polymeric vesicles because Lee specifically teaches that such polymersomes are superior to traditional or "stealth" liposomes for encapsulation technologies because of their thicker, more robust membranes. Regarding the claimed covalently bound conjugated emissive agents, one would have been motivated to substitute an emissive agent comprising two or more linked porphyrin moieties for the porphyrin moieties or other chromophores of Unger or Klaveness because said agents have absorption/emission maxima in the range of 600 - 1300 nm wavelengths, which have the ability to penetrate relatively deeply into living tissue without absorption by natural substances and are harmless to the body (column 3, lines 25-33), as well as the importance of high quantum yield for fluorescence (column 16) as required by Unger or Klaveness, and because Lin specifically teaches ethynyl-bridged porphyrin as having absorption around 800 nm, which may be used as optical probes, sensitizers, etc. Accordingly, one of ordinary skill in the art would have had a reasonable expectation of success in obtaining the predictable result of preparing a composition having improved vesicle strength and stability and having improved light imaging properties by making substitutions to the Klaveness or Unger vesicles in view of the Lee article and the Lin article.


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